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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,052	12/11/2003	Mike C. Burr	68,009-070	8993

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EXAMINER

ADDISU, SARA

ART UNIT PAPER NUMBER

3722

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/734,052	BURR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sara Addisu	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/26/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 19, 34 and 44 are objected to because of the following informalities:

- Claim 44 depends from claim 44. For the purpose of this Office Action, Examiner assumed that Claim 44 depends from claim 43. Appropriate correction is required.
- Claims 19 and 34 mention an intermediate position. This is mentioned again in the Specification (page 9 lines 6 and 9) but is not indicated in the figures.

### ***Specification***

2. The disclosure is objected to because of the following informalities: page 9, lines 6, and 9 state that reference number "72" is shown in dotted lines in Figs. 6B and 6C), however, reference "72" is not shown anywhere in the figures.

Appropriate correction is required.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "intermediate

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position, 72" (claimed in claims 19 and 34) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2, line 2, recites the limitation "the second axis". There is insufficient antecedent basis for this limitation in the claim.

5. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 recites "... wherein first and second axis are offset". Claim 1, line 6 recites "... the first and second axes being parallel". Claim 15 depends from claim 1 and when the first and second axes are parallel, they are automatically offset, therefore Examiner is unclear how claim 15 further limits the claimed subject matter.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

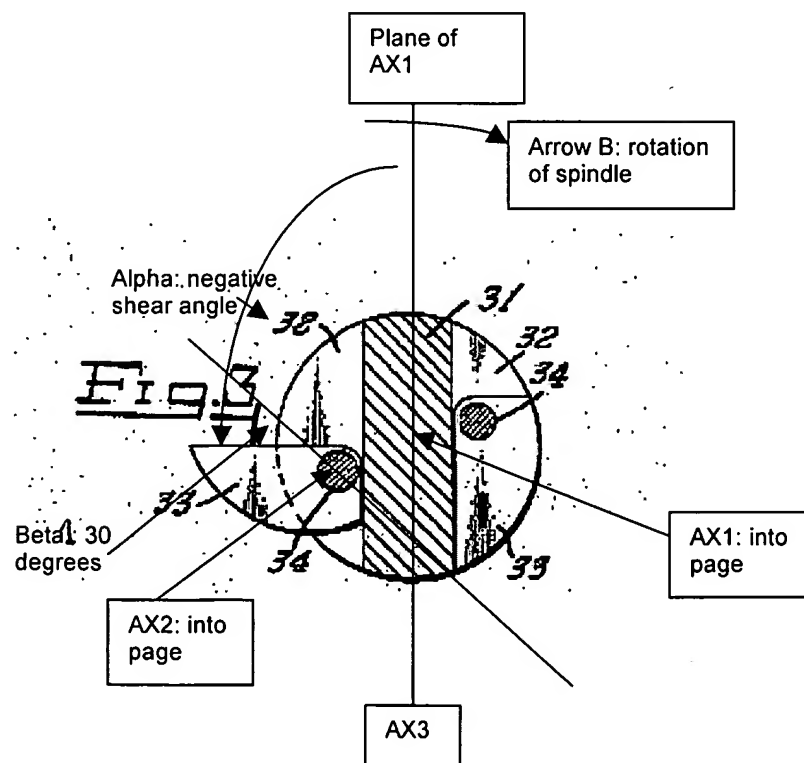
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-18 and 20-32, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Johansson (USP 3,372,610).

Regarding claims 1 and 20, JOHANSSON teaches a backspot facing tool comprising a shaft having a first and a second end, a recess (2) located near the first end having a first and second transverse surfaces that are generally parallel to each other and perpendicular to the first axis (as claimed in claims 8 and 27), the shaft having an outer circumference and being centered on said first axis and a cutting element (3 or 33) having an inner and outer portion and being provided with a pivot point (4: pivoting about a second axis) ('610, figures 1-3 and Col. 1, lines 52+). JOHANSSON also teaches cutter element (3) being movable between a closed position and an open position ('610, Col. 2, lines 13-16). Furthermore, JOHANSSON teaches the backspot facing tool being adapted to be rotated in a first direction (anticlockwise direction) to remove material from a workpiece and the cutting element (3) swings automatically (i.e. exhibits an over-center cam action) towards the closed position when the backspot facing tool is rotated in a second direction (clockwise) ('610, figure 2 and Col. 1, lines 18-26 and 31-44). Furthermore, regarding claim 1, JOHANSSON teaches the first axis (AX1) and the second axis (AX2: see figure below) being parallel (and therefore offset as claimed in claim 15) and with the spindle rotating in the clockwise direction (arrow B), the inner surface (A) of the cutting element forming a negative shear angle ( $\alpha$ ) with a plane intersecting the first axis (AX1) (see figure below). Regarding claims 2 and 21, JOHANSSON teaches the cutting element (3) being within an outer circumference of the shaft when in the closed position ('610, Col. 2, lines 16-18). Regarding claims 4-7 and 24-26, JOHANSSON teaches the cutting edge (that is perpendicular to AX2)

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forming an angle (beta 1) with a third axis (AX3) that perpendicular to the second axis (AX2) forming an angle less than or equal to 45 degree/ 30 degrees (see figure below. Note: reading the claim broadly, the third axis (AX3) is an arbitrary line drawn such that it is perpendicular to AX2). Regarding claims 22 and 23, JOHANSSON teaches in figure 3, the cutting element having a cutting edge that is perpendicular to a second axis (axis going through pivot point of cutting element). Regarding claims 11 and 30, JOHANSSON teaches the cutting element is unitarily formed ('610, Col. 1, lines 18-19). Regarding claims 12, 13, 14 and 31, JOHANSSON teaches the cutting element being composed from carbide (a wear resistant material) as well as a removable cutting edge portion (3b) ('610, Col. 2, lines 57-59). Regarding claim 32, JOHANSSON teaches the cutting element including a removable retaining screw portion (6). Regarding claims 9, 10, 28 and 29, JOHANSSON teaches centering element (5) having a conical end surface being received in a conical bore ('610, Col. 1, line 64- Col. 2, line 6).



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19 and 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson (USP 3,372,610).

JOHANSSON teaches a backspot facing tool, as set forth in the above rejection. Regarding claim 35, JOHANSSON teaches the backspot facing tool being adapted to be rotated in a first direction (anticlockwise direction) to remove material from a workpiece and the cutting element (3) swings automatically towards the closed position when the backspot facing tool is rotated in a second direction (clockwise) ('610, figure 2 and Col. 1, lines 18-26 and 31-44). Regarding claim 36, JOHANSSON teaches the cutting element (3) being within an outer circumference of the shaft when in the closed position ('610, Col. 2, lines 16-18). Regarding claims 37 and 38, JOHANSSON teaches the cutting element including a removable retaining screw portion (6) that is perpendicular to AX2. Regarding claims 39-41, JOHANSSON teaches the cutting edge forming an angle (beta 1) with a third axis (AX3) that perpendicular to the second axis



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(AX2) forming an angle less than or equal to 45 degree/ 30 degrees (see figure above.

Note: reading the claim broadly, the third axis (AX3) is an arbitrary line drawn such that it is perpendicular to AX2). Regarding claim 42, JOHANSSON teaches a recess (2) having a first and second transverse surfaces that are generally parallel to each other and perpendicular to the first axis. Regarding claim 43, JOHANSSON teaches centering element (5) having a conical end surface. Regarding claim 45, JOHANSSON teaches the cutting element is unitarily formed ('610, Col. 1, lines 18-19). Regarding claim 46, JOHANSSON teaches the cutting element is composed from carbide ('610, Col. 2, lines 57-59). Regarding claims 47 and 48, JOHANSSON teaches a removable cutting edge portion (3b) composed from carbide ('610, Col. 2, lines 57-59). Regarding claim 33, JOHANSSON teaches the cutting element including a removable retaining screw portion (6) (note it is well known in the art to use a screw composed of carbide because of its wear resistant composition).

Furthermore, regarding claim 34, JOHANSSON discloses the claimed invention (i.e. a cutter element (3) being movable between a closed position and an open position, '610, Col. 2, lines 13-16), except for the cutting element being movable to an intermediate position. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the pivoting movement of cutting element (3) adjustable such that it has an intermediate position to have the flexibility of facing a wider range of surface, because it has been held that the provision of adjustability, where needed, involves only routine skill in the art.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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4/14/06

  
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